



<b>COURSE DETAILS</b>
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<b>Units of Credit</b>	4 + 4 + 4
<b>Contact hours</b>	as agreed with supervisor

<b>Course Coordinators</b>	<b>Terms 1 &amp; 2:</b> Professor Ian Turner email: <a href="mailto:ian.turner@unsw.edu.au">ian.turner@unsw.edu.au</a> office: CE302 in Civil
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## HANDBOOK DESCRIPTION

The thesis may describe directed laboratory, investigatory, design, field or research work on an approved subject and will be completed under the guidance and supervision of a member of the

Online Handbook description is available at MyUNSW:

[www.handbook.unsw.edu.au/undergraduate/courses/2020/CVEN4951.html](http://www.handbook.unsw.edu.au/undergraduate/courses/2020/CVEN4951.html)

[www.handbook.unsw.edu.au/undergraduate/courses/2020/CVEN4952.html](http://www.handbook.unsw.edu.au/undergraduate/courses/2020/CVEN4952.html)

[www.handbook.unsw.edu.au/undergraduate/courses/2020/CVEN4953.html](http://www.handbook.unsw.edu.au/undergraduate/courses/2020/CVEN4953.html)

## PROCEDURE FOR SELECTION AND CONFIRMATION OF A RESEARCH THESIS TOPIC

**Your priority is to find a Supervisor and agree on a topic BEFORE ENROLLING in Research Thesis A.**

- ◁ Browse online search the selection of available topics and identify potential supervisors

<http://intranet.civeng.unsw.edu.au/info-about/student-intranet/honours>

Note: It is unlikely that this list is fully up-to-date and comprehensive. It is essential that during the Term prior to enrolment in Research Thesis A that individual students approach School teaching staff in area(s) of potential interest, to explore the range of possible thesis topics that may be available.

- ◁ Discuss your selection with potential topic supervisors
- ◁ Once you have a Supervisor and topic, you will need to download, complete and sign (both you and your Supervisor) a [Research Thesis Form](#) → enrol yourself on myUNSW → then upload the signed form to the Student Intranet here: <http://intranet.civeng.unsw.edu.au/info-about/student-intranet/submit-thesis-application-form>
- ◁ Please note that you will only be able to complete course enrolment for CVEN4951. The School will

That depends quite a bit on your field of study. However, all honours theses have at least two things in common:

- < They are based on students' original research.
- < They take the form of a written report, which presents the findings of that research.

### **WHY WRITE AN HONOURS RESEARCH THESIS?**

- < ***Satisfy your intellectual curiosity***

This is the most compelling reason to write a research thesis. You have studied courses during your degree that perhaps really piqued yourwri96 reW00 9.96 Tf4

- ◁ There are no specific hours assigned to this course, except for the scheduled Lunchtime Workshops (see below).
- ◁ Meetings between the supervisor(s) and the student may take place periodically or by private arrangement.
- ◁ Should supervisors be on study leave or unavailable for a considerable period of the session, alternative arrangements need to be established and made known to both the student and course coordinator.

### **CONSULTATION**

- ◁ The course coordinator will be available by prior appointment to liaise with enrolled students as needed.

<b>EXPECTED LEARNING OUTCOMES (MAPPED TO BE PROGRAM LEARNING OUTCOMES)</b>
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At the conclusion of this course, students should be able to:

1. Develop a design or a process or investigate a hypothesis following industry and professional engineering standards. (7, 8, 9, 10)
2. Critically reflect on a specialist body of knowledge related to their thesis topic. (3)
3. Apply scientific and engineering methods to solve an engineering problem. (7)
4. Analyse data objectively using quantitative and mathematical methods. (2, 7, 8)
5. Demonstrate oral and written communication in professional and lay domains. (12)

### **BE (Hons) Program Learning Outcomes:**

1. *Comprehensive, theory-based understanding of the underpinning natural and physical sciences and the engineering fundamentals applicable to the engineering discipline.*
2. *Conceptual understanding of the mathematics, numerical analysis, statistics, and computer and information sciences which underpin the engineering discipline.*
3. *In-depth understanding of specialist bodies of knowledge within the engineering discipline.*
4. *Discernment of knowledge development and research directions within the engineering discipline.*
5. *Knowledge of engineering design practice and contextual factors impacting the engineering discipline.*
6. *Understanding of the scope, principles, norms, accountabilities and bounds of sustainable engineering practice in the specific discipline.*
7. *Application of established engineering methods to complex engineering problem solving.*
8. *Fluent application of engineering techniques, tools and resources.*
9. *Application of systematic engineering synthesis and design processes.*
10. *Application of systematic approaches to the conduct and management of engineering projects.*
11. *Ethical conduct and professional accountability.*
12. *Effective oral and written communication in professional and lay domains.*
13. *Creative, innovative and pro-active demeanour.*
14. *Professional use and management of information.*
15. *Orderly management of self, and professional conduct.*
16. *Effective team membership and team leadership.*

<b>IT IS ESSENTIAL THAT YOU REGULARLY CHECK YOUR OFFICAL UNSW EMAIL FOR UPDATES, REMINDERS, ETC.</b>
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## SUMMARY OF RESEARCH THESIS MARKED ASSESSMENTS

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### Research Thesis A:

- |                 |         |                             |
|-----------------|---------|-----------------------------|
| 1. Component A1 | Week 7  | satisfactory/unsatisfactory |
| 2. Component A2 | Week 10 | 10 % of Final Mark          |

### Research Thesis B:

- |                 |                 |                   |
|-----------------|-----------------|-------------------|
| 1. Component B1 | Week 8 (B+C: 3) | 5 % of Final Mark |
|-----------------|-----------------|-------------------|

### Research Thesis C:

- |                      |         |   |
|----------------------|---------|---|
| 1. Seminar Abstract  | Week 7  | 5 % of Final Mark                             |
| 2. Research Seminar  | Week 10 | 10 % of Final Mark                            |
| 3. Thesis Submission | Week 11 | 70 % of Final Mark<br>(incl. 10 % Supervisor) |

***Further details of the requirements for the Seminar Abstract and the format & scheduling of Seminars will be advised by the Course Coordinator during the term.***

The Research Thesis is to be submitted electronically as a single pdf by 4.00pm on Friday of the submission week at: \_\_\_\_\_

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Further document requirements and upload instructions are available at this site. Students are encouraged to print for themselves a hard copy of their work, and supervisors may also request that they be provide a hard copy for their records.

### PROCEDURE FOR SEEKING APPROVAL TO ENROL IN RESEARCH THESIS B + C CONCURRENTLY

**With Supervisor and School approval, students who demonstrate accelerated progress during Research Thesis A** may be permitted to enrol in a 4+8 UoC structure, where Research Thesis B and C are both taken in the same term after Research Thesis A.

Students should submit their request to undertake Research Thesis B+C (concurrent) at the same time that they submit their extended Component A2 submission (see the ASSESSMENTS section above for the additional content to be include). The Course Coordinator will











